

--23. A semiconductor device comprising:

BI potential;
a conductor layer formed on a semiconductor substrate and applied with a ground

Contd
a dielectric film formed on the conductor layer; and

a conductor line formed on the dielectric film such that a bottom face of the conductor line is opposite to a top face of the conductor layer with the dielectric film interposed therebetween,

wherein the dielectric film comprises a first dielectric portion interposed between the conductor layer and the conductor line and a second dielectric portion which is formed on a side face of the first dielectric portion and has a different dielectric constant from that of the first dielectric portion.

24. The device of claim 23, wherein

the first dielectric portion comprises silicon nitride, and
the second dielectric portion contains titanium.

25. The device of claim 23, wherein the dielectric constant of the second dielectric portion is larger than 10.

26. The device of claim 23, further comprising a second dielectric film formed so as to cover the conductor line.

27. The device of claim 23, further comprising an active component operable at radio frequencies on the semiconductor substrate, the active component being electrically connected with at least one of the conductor layer and the conductor line.

28. A semiconductor device comprising:
a conductor layer formed on a semiconductor substrate and applied with a ground potential;
a dielectric film formed on the conductor layer; and

a conductor line formed on the dielectric film such that a bottom face of the conductor line is opposite to a top face of the conductor layer with the dielectric film interposed therebetween,

wherein the dielectric film comprises two or more dielectric layers with mutually different dielectric constants.

BEST AVAILABLE COPY

29. The device of claim 28, wherein at least one of the two or more dielectric layers comprises:

a first dielectric portion interposed between the conductor layer and the conductor line; and

a second dielectric portion formed on a side face of the first dielectric portion and has a different dielectric constant from that of the first dielectric portion.

30. The device of claim 28, wherein at least one of the two or more dielectric layers is patterned in accordance with a configuration of the conductor line.

31. The device of claim 28, further comprising a second dielectric film formed so as to cover the conductor line.

32. The device of claim 31, wherein the second dielectric film has a dielectric constant larger than 10.

33. The device of claim 28, further comprising an active component operable at radio frequencies on the semiconductor substrate, the active component being electrically connected to at least one of the conductor line and the conductor layer.

34. A semiconductor device, comprising:
a conductor layer formed on a semiconductor substrate;
a dielectric film formed on the conductor layer; and
a conductor line formed on the dielectric film, wherein

*Concld
SL*

the conductor layer is formed in accordance with a configuration of the conductor line,

the conductor layer is not present in at least a portion of a region below the conductor line, and

the dielectric film comprises two or more dielectric layers with mutually different dielectric constants.

doesn't make sense

BEST AVAILABLE COPY

*BI
Contd*

35. A semiconductor device comprising:

Structure

a coplanar conductor ~~layer~~ which is formed over a semiconductor substrate and comprises a conductor line and two conductor layers extending along the conductor line on opposite sides of the conductor line, each with a distance from the conductor line, each of the conductor layers being applied with a ground potential; and

a dielectric film formed so as to cover the coplanar conductor layer,

wherein the dielectric film has a dielectric constant larger than 10.

fig. 7

It to 2.

36. The device of claim 35, further comprising a second dielectric film which is formed between the semiconductor substrate and the coplanar conductor layer and has a dielectric constant larger than 10.

It to 2.

37. The device of claim 35, further comprising an active component operable at radio frequencies on the semiconductor substrate, the active component being electrically connected to the coplanar conductor layer.

fig. 7

38. A semiconductor device comprising:

a first dielectric film formed on a semiconductor substrate;

Structure

a coplanar conductor layer formed on the first dielectric film, the coplanar conductor layer comprising a conductor line on the first dielectric film, and two conductor layers extending along the conductor line on opposite sides of the conductor line, each with a distance from the conductor line, each of the conductor layers being applied with a ground potential; and

a second dielectric film formed so as to cover the coplanar conductor layer,

wherein at least one of the first and second dielectric films contains titanium.